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Figure 1

85P1B3 SSH sequence and GenBank homology to OIP5

GATCAGAGGACACATGGGACTCTGCATCTTAATTCCTAAATTTACAGTCAAAGACATTTTCAG AGATAAGTATTATGAATTCAATAAGAATCTAAAGTAAGTTCTTAAGGCAAATAGCTATAAAA GAGAAGAATCCTTAGTCTCTCATCTTCTAAAAAACAGCTTCACAAATAATTTGGAAAATCAGCC TAAAGGTAAATAGAAACTGCATTTCCCCTCCATTCTTGAAGCCAATCTTTTTCAAGAAATGAC TAAGCAGCACCTGTTGTTGAAGACAGCAATAAAGCCTGAACCTGACACTCAAGCTTTGGTACA **GGATC**

gb|AF025441.1|AF025441 Homo sapiens Opa-interacting protein... 632 e-179 gb|AF158642.1|AF158642 Homo sapiens metalloproteinase-disin... 42 0.12 gb|AC005075.2|AC005075 Homo sapiens clone RG219E16, complet... 42 0.12 emb|AL096773.6|HS1000E10 Human DNA sequence from clone 1000... 40 0.48

>gb|AF025441.1|AF025441 Homo sapiens Opa-interacting protein OIP5 mRNA, partial cds Length = 1197

Score = 632 bits (319), Expect = e-179Identities = 319/319 (100%)Strand = Plus / Minus

Query: 1 gatcagaggacacatgggactctgcatcttaattcctaaatttacagtcaaagacatttt 60 Sbjct: 1013 gatcagaggacacatgggactctgcatcttaattcctaaatttacagtcaaagacatttt 954 Query: 61 Sbjct: 953 Query: 121 taaaagagaagaatccttagtctctcatcttctaaaaacagcttcacaaataatttggaa 180 Sbjct: 893 taaaagagaagaatccttagtctctcatcttctaaaaaacagcttcacaaataatttggaa 834 Query: 181 aatcagcctaaaggtaaatagaaactgcatttcccctccattcttgaagccaatcttttt 240 Sbjct: 833 aatcagcctaaaggtaaatagaaactgcatttcccctccattcttgaagccaatcttttt 774 Query: 241 caagaaatgactaagcagcacctgttgttgaagacagcaataaagcctgaacctgacact 300 caagaaatgactaagcagcacctgttgttgaagacagcaataaagcctgaacctgacact 714

Query: 301 caagctttggtacaggatc 319

Sbjct: 713 caagctttggtacaggatc 695

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Figure 2

cDNA Sequence and ORF of 85P1B3/OIP5 clone A

27 CT CAG CCG CTG CGG	36 45 54
	CAT CGC TCA CGT TGT GCA ACC
A Q P L R	H R S R C A T
81 GT GGT GGC ACT GAG	90 99 108 AGG GCG ATT GAC CAA GCT TCT
C G G T E	R A I D Q A S
	144 153 162 GTG AAG GGG TCC TCG CCG CTC
W D T Q V	V K G S S P L
189 CT GAG GAG CCA GCC	198 207 216 GCC GGC CCG CAG CTG CCG TCT
A E E P A	A G P Q L P S
243 GC GCT GTG TTC CAG	252 261 270 TGC GCA CAG TGT CAC GCA GTG
C A V F Q	C A Q C H A V
297 TC GCC TGG GAC CTG	306 315 324 TCG CGG TCC CTC GGG GCC GTG
L A W D L	S R S L G A V
351 AT AAC GTC GTT TTG	360 369 378 GAA GCG CCC TTC CTA GTT GGC
N N V V L	E A P F L V G
405 GC AGT ACT TAC AAC	414 423 432 CTT TTA TTC TGT GGT TCT TGT
G S T Y N	L L F C G S C
	468 477 486 CAT GCT GCC CTG GCT GCC TTG
H L Y S T	H A A L A A L
	522 531 540 GTG TGC TAT CTC TTA AAA ACA
S D K M	V C Y L L K T
CA GAG ATG GAT ATT (576 585 594 CAA AAT GTT CCT CTA TCA GAA
	Q N V P L S E
G AAG ATA GTG CTA A	530 639 648 ACG CAC AAT CGC TTA AAA TCA
S S D K M 567 S CA GAG ATG GAT ATT C	V C Y L L K 576 585 CAA AAT GTT CCT CTA TCA

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		657			666			675			684			693			702
CTA	ATG	AAG	ATT	CTG	AGT	GAA	GTG	ACT	CCT	GAC	CAG	TCC	AAG	CCA	GAA	AAC	TGA
L	M	K	I	L	S	E	V	T	P	D	Q	s	K	P	E	N	*
		711			720			729			738			747			756
TCC	TGT															AAC	
AGG																GGG	AAA
								837									864
TGC	AGT															CTG	
		873															
TTA	GAA	GAT	GAG	AGA	CTA	AGG	ATT									TAA	
		927			026			945						063			 972
Стт	АСТ														TGT	CTT	
		981			990			999		:	1008		:	1017		:	L026
CTG	TAA	ATT	TAG													AAA	
		1025															
GCA																CTC	
																:	
																AAA	
		1143						 1161									1188
CAG																AAA	
	:	1197		:	1206			1215		:	1224		:	1233			1242
AAA	AAA	AAA	AAA	AAA	AAA	AAA							AAA	AAA	AAA	AAA	AAA
		1251			1260												
ααα			AAA				3,										
							=										

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Figure 3

85P1B3/OIP5 protein sequence.

1 MAAQPLRHRS RCATPPRGDF CGGTERAIDQ ASFTTSMEWD TQVVKGSSPL GPAGLGAEEP 61 AAGPQLPSWL QPERCAVFQC AQCHAVLADS VHLAWDLSRS LGAVVFSRVT NNVVLEAPFL 121 VGIEGSLKGS TYNLLFCGSC GIPVGFHLYS THAALAALAG HFCLSSDKMV CYLLKTKAIV

181 NASEMDIQNV PLSEKIAELK EKIVLTHNRL KSLMKILSEV TPDQSKPEN*

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Figure 4

Alignment of 85P1B3 with OIP5.

>gi|2815610|gb|AAC39561.1| (AF025441) Opa-interacting protein OIP5 [Homo sapiens] Length = 231

Score = 462 bits (1189), Expect = e-130Identities = 229/229 (100%), Positives = 229/229 (100%)

85P1B3: 1 MAAQPLRHRSRCATPPRGDFCGGTERAIDQASFTTSMEWDTQVVKGSSPLGPAGLGAEEP 60 MAAQPLRHRSRCATPPRGDFCGGTERAIDQASFTTSMEWDTQVVKGSSPLGPAGLGAEEP

MAAQPLRHRSRCATPPRGDFCGGTERAIDQASFTTSMEWDTQVVKGSSPLGPAGLGAEEP 62 OIP5: 3

85P1B3: 61 AAGPQLPSWLQPERCAVFQCAQCHAVLADSVHLAWDLSRSLGAVVFSRVTNNVVLEAPFL 120 AAGPQLPSWLQPERCAVFQCAQCHAVLADSVHLAWDLSRSLGAVVFSRVTNNVVLEAPFL

AAGPQLPSWLQPERCAVFQCAQCHAVLADSVHLAWDLSRSLGAVVFSRVTNNVVLEAPFL 122 OIP5: 63

85P1B3:121 VGIEGSLKGSTYNLLFCGSCGIPVGFHLYSTHAALAALRGHFCLSSDKMVCYLLKTKAIV 180 VGIEGSLKGSTYNLLFCGSCGIPVGFHLYSTHAALAALRGHFCLSSDKMVCYLLKTKAIV

VGIEGSLKGSTYNLLFCGSCGIPVGFHLYSTHAALAALRGHFCLSSDKMVCYLLKTKAIV 182 OIP5: 123

85P1B3:181 NASEMDIQNVPLSEKIAELKEKIVLTHNRLKSLMKILSEVTPDQSKPEN 229 NASEMDIQNVPLSEKIAELKEKIVLTHNRLKSLMKILSEVTPDQSKPEN NASEMDIQNVPLSEKIAELKEKIVLTHNRLKSLMKILSEVTPDQSKPEN 231

OIP5: 183

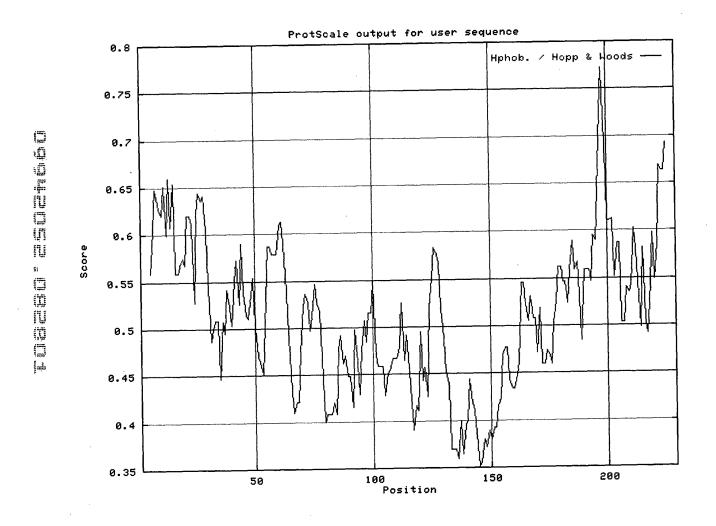
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Figure 5: 85P1B3 Hydrophilicity profile

(Hopp T.P., Woods K.R., 1981. Proc. Natl. Acad. Sci. U.S.A. 78:3824-3828)



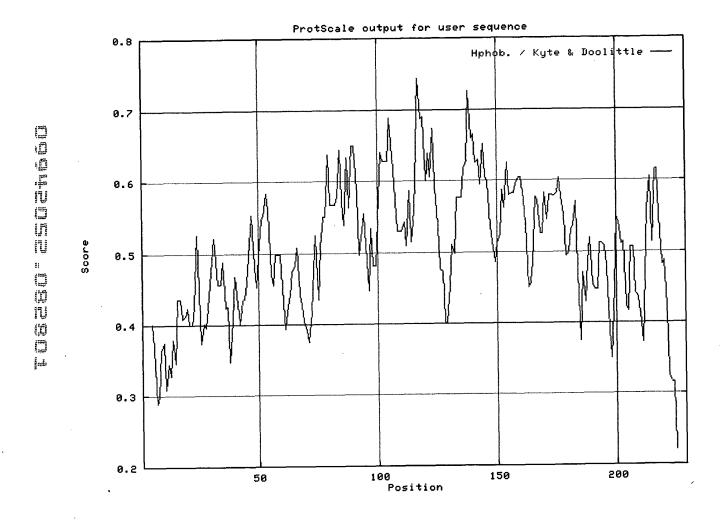
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Figure 6: 85P1B3 Hydropathicity Profile

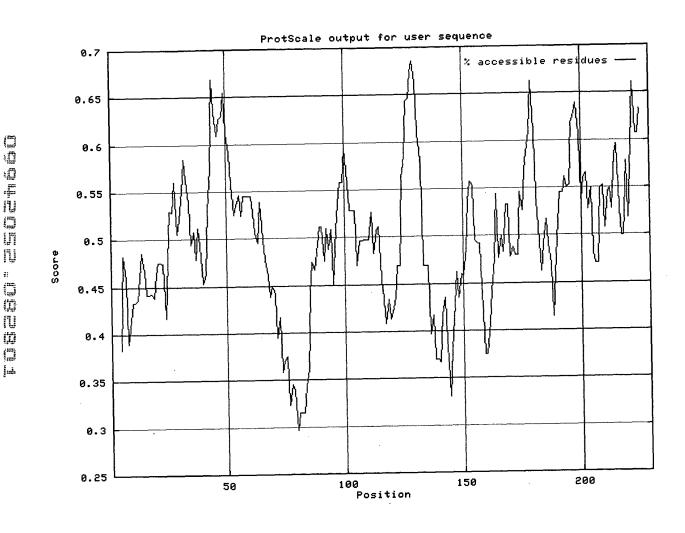
(Kyte J., Doolittle R.F., 1982. J. Mol. Biol. 157:105-132)



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Figure 7: 85P1B3 % Accessible Residues Profile (Janin J., 1979. Nature 277:491-492)



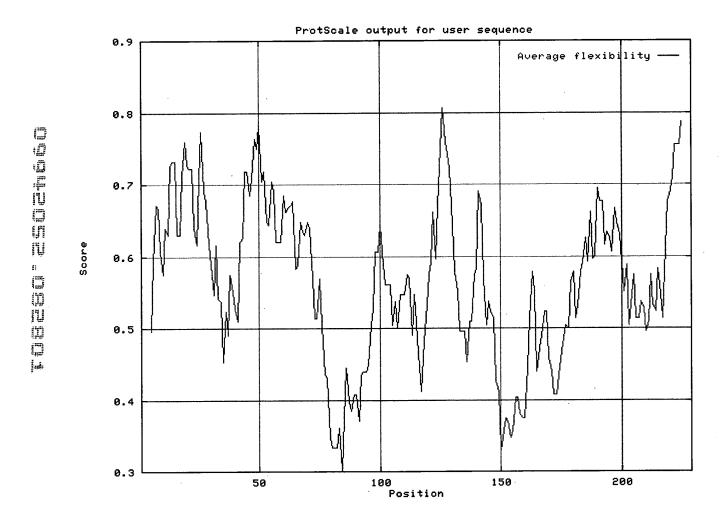
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Figure 8: 85P1B3 Average Flexibility Profile

(Bhaskaran R., Ponnuswamy P.K., 1988. Int. J. Pept. Protein Res. 32:242-255)

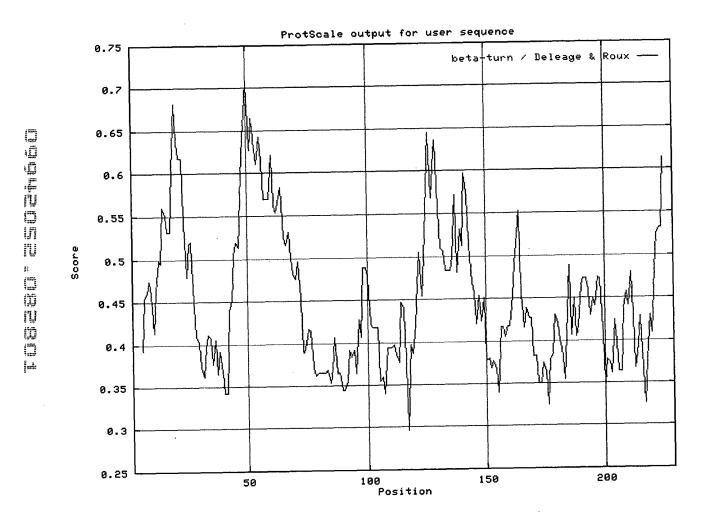


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Figure 9: 85P1B3 Beta-turn Profile

(Deleage, G., Roux B. 1987. Protein Engineering 1:289-294)



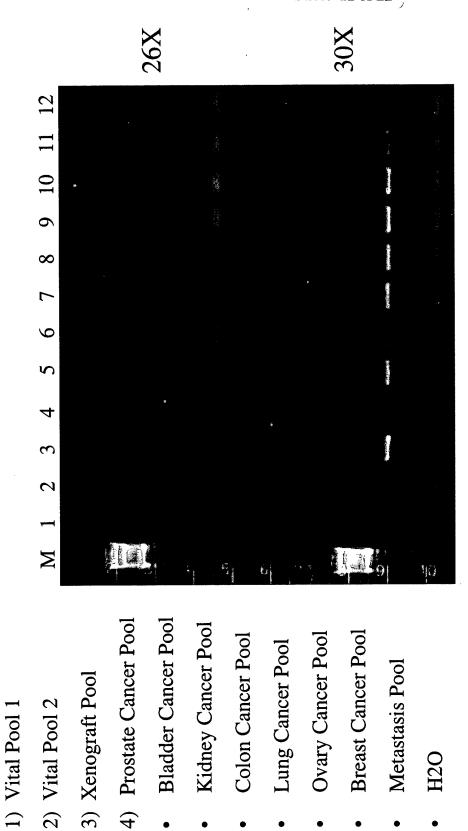
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Figure 10 RT-PCR analysis of 85P1B3 expression.



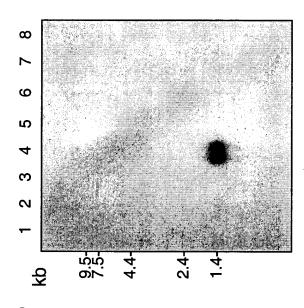
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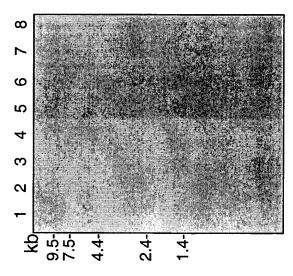
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Figure 11 Expression of 85P1B3 in Normal Human Tissues



2. Thymus3. Prostate4. Testis5. Ovary6. Small Intestine7. Colon8. Leukocytes

Ω



Heart
 Brain
 Placenta
 Lung
 Liver
 Skeletal Muscle
 Kidney
 Pancreas

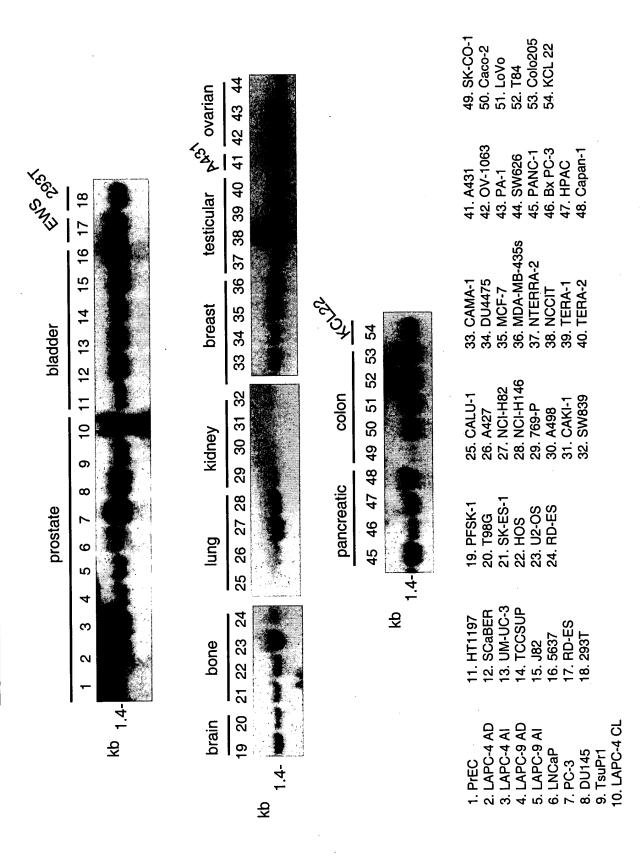
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Figure 12 Expression of 85P1B3 in Human Cancer Cell lines

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Figure 13 Expression of 85P1B3 in Patient Cancer Specimens and Cancer Cell Lines

Cancer cell lines are: (from left to right)

Jaudi (Burkitt's lymphoma) HeLa (cervical carcinoma) 4549 (lung carcinoma) G361 (melanoma) K562 (CML) HL-60 (PML)

SW480 (colorectal carcinoma) MOLT-4 (lymphoblastic leuk.)

Raji (Burkitt's lymphoma)

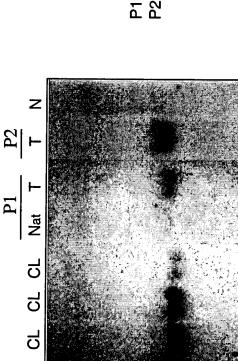
cervix prostate Z b stomach cancer cell breast uterus

N = normal adjacent tissue RNA T = tumor RNA

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Figure 14 Expression of 85P1B3 in Colon Cancer Patient Specimens



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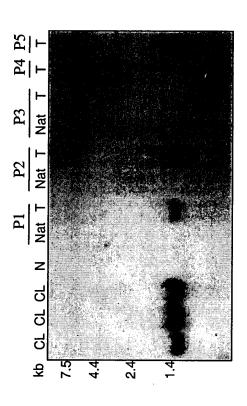
P1 - Stage III, T2N1MX P2 - Stage III, T3N1MX

Cell Lines (CL) - Colo 205, LoVo, T84, Caco-2 N = Normal Colon Nat = Normal Adjacent tissue T = Tumor entor: Arthur B. RAITANO
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Figure 15 Expression of 85P1B3 in Bladder Cancer Patient Specimens



P1 - Transitional, grade 2 P2 - Transitional, grade 3/2 P3 - Transitional P4 - Polypoid cystitis

P5 - Papillary, grade 3

CI = cell lines listed in order: UM-UC-3, J82, SCABER
P = Patient
N = Normal Bladder
Nat = Normal adjacent tumor
T = Tumor

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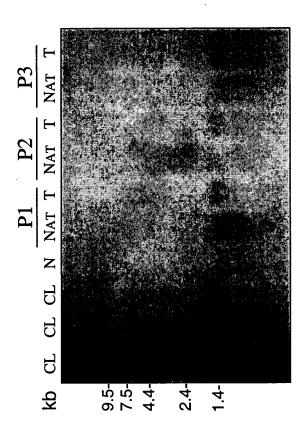
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Figure 16 Expression of 85P1B3 in Lung Cancer Patient Specimens

P1 - Squamous, stage IB P2 - Squamous, stage IIB P3 - Squamous, stage IIIA

= cell lines (listed in order): A427, NCI-H82, NCI-H146 = Normal adjacent tissue = Normal Lung = Patient ರ



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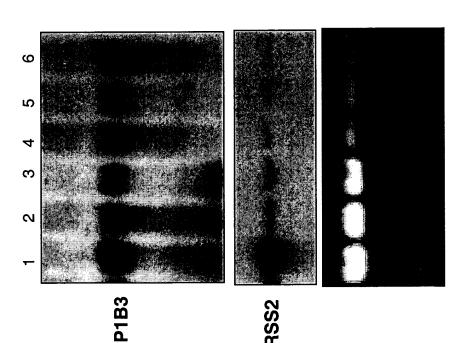
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Figure 17 Expression of 85P1B3 in Prostate Cancer Xenografts Following **Castration**

-APC-9AD Day 0 - Mouse #1 -APC-9AD Day 7 - Mouse #2 -APC-9AD Day 7 - Mouse #3

APC-9AD Day 15 – Mouse #4. APC-9AD Day 15 – Mouse #5

Monse #6

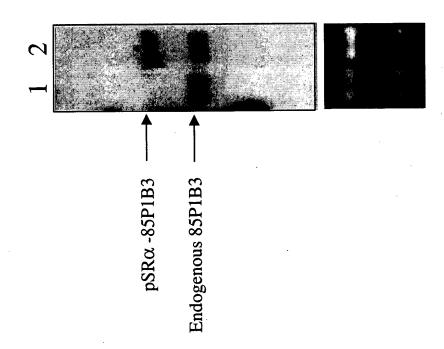


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Figure 18 Expression of 85P1B3 in PC3 Cells Following Retroviral-Mediated Gene Delivery

LAPC-9AI PC3-85P1B3



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